

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A multilayer structure formed on a glass or plastic substrate for shading ultraviolet and infrared light, comprising:

~~two or~~ three layers of Ag;

~~two or three~~ layers of indium tin oxide (ITO); and

5 dielectric oxide layers ranging from two layers to four layers,

wherein ~~at least~~ two AG layers are alternately formed to be in contact with the two ITO ~~layer~~ layers, and the other Ag layer is formed to be in contact with the substrate; as an upward or downward layer.

wherein one of the dielectric layers is a top layer from the substrate; and

10 wherein each dielectric oxide layer is made of a material which is selected from SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, ZrO<sub>2</sub>, Y<sub>2</sub>O<sub>3</sub>, and Ta<sub>2</sub>O<sub>5</sub>.

2-3. Cancelled

4. (Currently Amended) The multilayer structure as recited in claim 1, wherein the multilayer structure has seven (7) layers of:

a first layer of Ag formed on the substrate, having a thickness of ~~5.79~~ at least 5.7 nm and a refractive index of ~~0.051~~ at least 0.05;

5 a second layer of Y<sub>2</sub>O<sub>3</sub> formed on the first layer, having a thickness of ~~85.56~~ at least 85.5 nm and a refractive index of ~~1.79581~~ at least 1.7;

a third layer of Ag formed on the second layer, having a thickness of ~~9.39~~ at least 9.3 nm and a refractive index of ~~0.051~~ at least 0.05;

10 a fourth layer of ITO formed on the third layer, having a thickness of ~~71.91~~ at least 71.9  
nm and a refractive index of ~~2.058~~ at least 2.05;

a fifth layer of Ag formed on the fourth layer, having a thickness of ~~12.82~~ at least 12.8  
nm and a refractive index of ~~0.051~~ at least 0.05;

a sixth layer of ITO formed on the fifth layer, having a thickness of ~~36.14~~ at least 36.1  
nm and a refractive index of ~~2.058~~ at least 2.05; and

15 a seventh layer of  $Y_2O_3$  formed on the sixth layer, having a thickness of ~~4.08~~ at least 4.0  
nm and a refractive index of ~~1.79581~~ at least 1.7.

5. (Currently Amended) The multilayer structure as recited in claim 1, wherein the  
multilayer structure has seven (7) layers of:

a first layer of Ag formed on the substrate, having a thickness of at least 5.6 nm and a  
refractive index of ~~0.0051~~ at least 0.005;

5 a second layer of  $ZrO_2$  formed on the first layer, having a thickness of ~~63.84~~ at least 63.8  
nm and a refractive index of ~~2.06576~~ at least 2.06;

a third layer of Ag formed on the second layer, having a thickness of ~~10.05~~ at least 10.0  
nm and a refractive index of ~~0.051~~ at least 0.05;

10 a fourth layer of ITO formed on the third layer, having a thickness of ~~76.34~~ at least 76.3  
nm and a refractive index of ~~2.058~~ at least 2.05;

a fifth layer of Ag formed on the fourth layer; having a thickness of ~~13.07~~ at least 13.0  
nm and a refractive index of ~~0.051~~ at least 0.05;

a sixth layer of ITO formed on the fifth layer, having a thickness of ~~29.57~~ at least 29.5  
nm and a refractive index of ~~2.058~~ at least 2.05; and

15 a seventh layer of  $ZrO_2$  formed on the sixth layer, having a thickness of ~~9.58~~ at least 9.5  
nm and a refractive index of ~~2.06576~~ at least 2.06.

6-8. Cancelled.

9. (Original) An article comprising the structure of claim 1 applied to a surface of a glass or plastic substrate.

10. (Currently Amended) A window construction for ultraviolet and infrared shading comprising:

a substrate of glass or plastic material;

~~two or~~ three layers of Ag;

5 ~~two or three~~ layers of indium tin oxide (ITO); and

dielectric oxide layers ranging from two layers to four layers,

wherein ~~at least two~~ Ag layers are alternately formed to be in contact with the two ITO ~~layer~~ layers, and the other Ag layer is formed to be in contact with the substrate; ~~as an upward or downward layer~~

10 wherein one of the dielectric layers is a top layer from the substrate; and

wherein each dielectric oxide layer is made of a material which is selected from SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, ZrO<sub>2</sub>, Y<sub>2</sub>O<sub>3</sub>, and Ta<sub>2</sub>O<sub>5</sub>.

11. Cancelled.

12. (Currently Amended) A safety glass comprising:

two transparent panes made of glass or plastic material;

a plastic sheet adhered between the two transparent panes, preventing the panes from shattering; and

5 an optical coating formed on at least one of the transparent panes against the plastic sheet, for shading ultraviolet and infrared light, comprising:

~~two or~~ three layers of Ag;

~~two or three~~ layers of indium tin oxide (ITO); and

dielectric oxide layers ranging from two layers to four layers[.,,];

10            wherein ~~at least~~ two Ag layers are alternately formed to be in contact with the two ITO  
layer layers, and the other Ag layer is formed to be in contact with the substrate, ~~as an upward or~~  
~~downward layer~~.

wherein one of the dielectric layers is a top layer from the pane; and

wherein each dielectric oxide layer is made of a material which is selected from SiO<sub>2</sub>,  
15   Al<sub>2</sub>O<sub>3</sub>, ZrO<sub>2</sub>, Y<sub>2</sub>O<sub>3</sub>, and Ta<sub>2</sub>O<sub>5</sub>.

13.      Cancelled.